Please add subtitles as follows:

Page 1, before paragraph 1, add a subtitle: "FIELD OF THE INVENTION".

Page 1, before line 6, add a subtitle: "DESCRIPTION OF RELATED ART".

Page 2, line 20, add a subtitle: "SUMMARY OF THE INVENTION"

Page 5, before line 1, add a subtitle: "BRIEF DESCRIPTION OF THE DRAWINGS".

Page 6, line 10, add a subtitle: "DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS".

Please amend paragraph 2, page 1 (from line 6, page 1 to line 2, page 2) as follows:

Spin-valve structures such as Giant Magneto Resistance (GMR) and Spin-tunnel Magneto Resistance (TMR) devices recently have been extensively studied and have been the subject of many disclosures. GMR- and TMR- devices comprise as a basic building block two ferromagnetic layers separated by a separation layer of a non-magnetic material. This structure will be referred to as the basic GMR- or TMR- stack of the magnetic device, or is referred to as the GMR-or TMR- structure. Such structure has a magneto resistance characteristic and shows the GMR- or TMR- effect. The separation is a non-ferromagnetic metallic layer for GMR- devices, and is a non-metallic, preferably insulating, layer for TMR- devices. Over the separation layer, there is a magnetic coupling between the two ferromagnetic layers. The insulating layer in the TMR-devices allows for a significant probability for quantum mechanical tunneling of electrons between the two ferromagnetic layers. Of the two ferromagnetic layers, one is a so-called free layer, and the other is a so-called hard pinned layer. The free layer is a layer whose magnetization direction can be changed by applied magnetic fields with a strength lower, preferably substantially lower, than the strength of the field required for changing the magnetization direction of the pinned layer. Thus, the pinned layer has a preferred, rather fixed magnetization direction, whereas the magnetization direction of the free layer can be

changed quite easily under an external applied field. A change of the magnetization of the free layer changes the resistance of the TMR- or GMR- device. This results in the so-called magneto resistance effect of these devices. The characteristics of these magnetic devices or systems can be exploited in different ways. For example a spin valve read-out element utilizing the GMR-effect can be used for advanced hard disk thin film heads. Also magnetic memory devices such as standalone or non-volatile embedded memory devices can be made based on the GMR- or TMR- elements. An example of such memory devices are MRAM devices. A further application is a sensor device or system for magnetic characteristics. Such sensors are used for example in anti-lock braking (ABS) systems or other automotive applications.

Please amend paragraph 2, page 7 as follows:

In order to demonstrate the improved magnetic field range of the present invention, samples similar to those shown in Fig. 1 with differing numbers of ferromagnetic layers in the AAF stack 30, both odd and even, were prepared such that the total amount of ferromagnetic material in the AF stacks 30was kept essentially the same. Thicknessess of the materials are given in Table 1. As can be seen from this table the thickness of the ferromagnetic layers towards the outside of the stack of layers was made in some cases thinner than layers towards the center of the stack. However, the present invention includes making the thickness of outer ferromagnetic layers thinner than an inner layer.